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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,440	04/01/2005	Yoshiyuki Shoji	H6808.0077/P077	4457
24998 7590 02/11/2009 DICKSTEIN SHAPIRO LLP 1825 EYE STREET NW Washington, DC 20006-5403				
EXAMINER GORDON, BRIAN R				
ART UNIT		PAPER NUMBER		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/524,440

**Applicant(s)**

SHOJI ET AL.

**Examiner**

Brian R. Gordon

**Art Unit**

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 9-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/CI/CDC)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election without traverse of Group I, claims 1-8 in the reply filed on January 22, 2009 is acknowledged.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 1, it is unclear what structure provides for the action of switching the communication at certain time intervals during liquid suction. There is no additional structure claimed. Therefore, the phrase directed to such is not further structurally limiting of the device. The "wherein" clause is directed to intended/desired use of the device rather than the structure of the device.

As to claim 2, it is unclear if the channels are intended to be claimed as elements of the device. The phrase "disposed on channels" suggests that the chambers are attached to the exterior of channels. The claim is further unclear for the specification discloses the switching valve and channel opening/closing valve as being the same element (see paragraphs 0054-0057). The switching valve in claim 1 actually appears to be the multiple valve 205. It is suggested applicant use consistent terminology.

It appears as if the claim should be amended as comprising:

a plurality of channels,

a chamber disposed in each of said channels...

As to claim 3, since the device has been previously claimed to include "channels" it is unclear which channel is referenced in line 3. Is the "a channel" of claim 3 the included in the "channels" of claim 2 or is it a different channel? Furthermore there are a plurality of suction portions and chambers claimed. Therefore it is unclear which suction portion and chamber is referenced. Is there a single channel opening/closing valve or is there a plurality of such valves respectively associated with each liquid suction portion and chamber.

As to claim 4, the "wherein" clause is not further limiting for the phrase is directed to intended use. The liquid is not a structural limitation of the device.

Claim 5 is not further structurally limiting. The claim is directed to a liquid that is not positively claimed as an element of the apparatus.

As to claim 6, it is unclear what is the structural difference between a switching valve of claim 1 and a multiple valve. The claim implies both are one in the same. However, the specification and Figure 11, indicate that the multiple valve 205 and switching valve 33 are different and in different locations within the apparatus.

Claim 7 is not further structural limiting. No liquid is positively claimed as a structural limitation of the apparatus. One is free to choose any desired volume to be sucked. The structure cannot be defined relative to an unclaimed element.

As to claim 8, it is unclear if the respective channels are intended to be claimed as elements of the device. It is further unclear if the channels are the same or different from the channels of claim 2. Furthermore it is unclear what is meant by "thinner than". Is applicant referring to wall thickness, diameter, circumference, or some other dimension of the channel?

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Brink et al. Us 2002/0164821. Brink et al. discloses a device for dispensing a plurality of liquids is providing, including: (a) a plurality of containers (chambers/containers); (b) a selection valve (switching/multiple valve 30) moveable between a plurality of positions enabling fluid communication between a respective one of said plurality of containers and an opening and a position enabling fluid communication between said opening and an outlet; (c) a pump connected to said opening and having: (i) a conduit connecting the pump to the opening; and (ii) a settling vessel arranged between the ends of the

conduit, for accommodating a spacer liquid, wherein the internal diameter of the settling vessel is greater than the internal diameter of the conduit. (abstract).

6. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Marshall et al US 6,887,429.

Marshall et al. discloses a device comprising several reagent reservoirs 31 (containers/chambers) can be packaged in a disposable reagent cartridge 30. The reagent cartridge 30 is configured to fit onto a mounting bracket 51, shown in FIGS. 4 and 5, having a plurality of hollow needles 52 (suction portions) positioned to extend into the reagent cartridge. Each needle 52 is positioned to align with a respective reagent reservoir 31 when the reagent cartridge 30 is inserted into the mounting racket. The needles 52 are sized to penetrate the septa 32 in the reagent cartridge 30, but not the frits 33 at the bottom of the reagent reservoirs.

The needles 52 are coupled to the multi-position valve 55 (switching/multiple valve)(FIG. 3) by short lengths of narrow bore tubing 53 or other suitable flow conduits that form the reagent stream line. Only one cartridge connection is shown for purposes of clarity. Once the reagent cartridge 30 is installed on the mounting bracket 51 and the needles 52 are in fluid communication with the respective reagent reservoirs 31, a reagent makeup sequence, wherein selected reagents are withdrawn from the reagent cartridge 30 in selected volumes, can be initialized for a desired medical diagnostic test using the SIA assembly 5. The device aloes includes a pump 57. (column 7, lines 2-51).

7. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Afeyan et al. US 6,344,172.

Afeyan et al. disclose an apparatus for the separation and analysis of proteins, which includes a sample input, a first liquid chromatography column, a multiport injection valve connecting the sample input to the column, a pump for providing variable pressure delivery of a solution to the column via the multiport valve, and a program for specifying a sequence of system control programs. (abstract).

As seen in Figure 3, the system includes (switching/multiple valves 116, 151) that allows suction from reservoirs 117a-d (containers/chambers) via channels. The fluids are transported via pump 119 driven via a stepper motor.

8. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Koike, US 5,660,792.

Koike discloses a system that comprise a plurality of containers/chambers M(1-6) from which liquid is sucked and connected via channels to a selection valve 26 (switching/multiple valve), and a pump 28A-C, and second valve (unlabeled in Figure 5) between the pumps and selection valve.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cueni, Hansjorg Emil et al.; Johnson, James E. et al.; Anderson, Marc R. et al.; Ahlfors; Charles E. et al.; Davis; Bruce R. et al.; Bergh; H. Sam et al.; Johnson; James E. et al.; Anderson; Marc R. et al.; Merten; C. William et al.; Maiefski; Romaine et al.; Rao; Prabhakar P. et al.; Laugham, Jr.; James A. et al.; Maiefski; Romaine et al.; Holmberg; Lars; Dovichi; Norman J. et al.; and Mitsumaki; Hiroshi et al. disclose devices including switching/selection valves.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian R. Gordon whose telephone number is 571-272-1258. The examiner can normally be reached on M-F, 1st Fri. Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brian R Gordon/  
Primary Examiner  
Art Unit 1797